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ABSTRACT

This paper is a discussion of alternative state approaches to aiding and costing capital outlay programs, particularly equipment purchases for vocational programs. Equipment costs for vocational programs tend to be a larger proportion of the total costs than in other programs. The paper includes a discussion of such topics as the magnitude of capital outlay expenditures, current state practices, theoretical and practical aspects of alternative state funding approaches, and, in particular, a discussion of the effects of including equipment depreciation costs in program cost differentials. (Author/MLF)

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COST DIFFERENTIALS AND THE TREATMENT OF EQUIPMENT ASSETS:

An Analysis of Alternatives*

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An historical analysis of state subventions for local school districts reveals almost universal support for current operating expenses but a neglect or non-sharing stance with respect to capital outlay and indebtedness expenditures. The most persistent rationale for the exclusion of capital outlay and indebtedness expenditures from state support programs has been that such expenditures fluctuate in accordance with local preferences and demands; therefore, the argument continues, the state should not use its tax dollars to support locally preferred expensive buildings and equipment. Capital outlay expenditures, except perhaps for replacements, has been and continues to be ignored in the state support formulae of many states to date.

It is doubtful whether the exclusion of capital outlay from state subventions to local school districts could stand the constitutional or statutory test in state courts. Under a rigorous test of equal educational opportunity and/or fiscal neutrality, states without provisions for supporting capital outlay expenditures likely would be found in violation, particularly since there are alternative approaches for treating capital outlay expenditures which will satisfy the legal question. Recognition that arguments for excluding provisions for capital outlay are archaic, and that recent legal principles also may

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apply to capital outlay, have prompted a number of states to make provisions for capital outlay in their aid programs in recent years.

If states pay more than token attention to the problem, equality of educational opportunity requires that they provide each child equal access to an educational program designed to meet the child's needs. Special and vocational education programs are not exceptions to this principle. That these two particular types of educational programs happen to require more capital investment than most regular education programs, does not imply that the state ignore such costs. It is assumed in this paper that there is a certain segment of the K-12 student population which needs and can profit from vocational programs, and therefore, such programs are necessary in the public schools.

This paper is a discussion of alternative state approaches to aiding and costing capital outlay programs, particularly equipment purchases for vocational programs, as the share equipment costs is of total costs tends to be higher for vocational programs. The paper will include a discussion of such topics as the magnitude of capital outlay expenditures, current state practices, theoretical and practical aspects of alternative state funding approaches, and in particular, a discussion of the effects of including equipment depreciation costs in program cost differentials.

The Magnitude of Capital Outlay and Equipment Expenditures

Capital outlay expenditures in the public schools vary considerably among school districts and states. School Management reported that capital outlay expenditures in its 1973-74 survey of a sample

of school districts averaged $46.53 per pupil in average daily attendance or approximately 4.56 percent of net current expenditures.[1] It has been estimated that approximately 10-15 percent of capital outlay costs are for equipment, with the balance going for the purchase of transportation vehicles (2 percent), facilities (68-78 percent), and land (10-15 percent), with the variation depending on the level of education, type of program and local prices. Approximately 4.9 billion dollars was spent for capital outlay programs in the public schools in 1973-74, up 12 percent over 1972-73.[2] The problem with these data is that inconsistent reporting and non-standardized accounting procedures may result in inaccuracies, depending on how capital outlay is defined. Are expenditures for new buildings, renovations, remodeling, new equipment, equipment replacements and repair included in the calculation of capital outlay? Not likely, yet all of the above result in additions to or alterations in the fixed assets of a school district.

Another aspect of identifying capital outlay costs is related to the fact that many school districts choose to finance their capital acquisitions over the long term while others purchase fixed assets with current revenue. As these two approaches result in different expenditure reporting and accounting procedures, it tends to blur the capital outlay burden picture. Still another difficulty is that program accounting is virtually non-existent in most school districts, therefore, standard accounting procedures for facility and equipment expenditures by program needs to be instituted before a more accurate picture of such costs can be obtained. A

report of the study of South Dakota's financing arrangements said it well:

> "Unless more detailed expenditures and staffing information are collected systematically on a program by program basis, it will be difficult to provide adquate funding for special educational programs which will meet the varying needs of pupils who attend the public schools. [3]

McClure and Pence, in their study of early childhood and basic elementary and secondary education, shed some light on capital outlay costs. They estimated the annual depreciation costs (assuming a 35 year expected life) for fixed assets at $140/pupil/year at 1969 prices, which was 16.4 percent of average current expenditures in grades 1-12.[4] McClure and Pence found that the average percentage of total current expenditures allocated to vocational-technical programs was 1.7 percent for cities, 1.1 percent for suburbs and 2.0 to 3.6 percent for independent districts.[5]

Keene assumed a ten year depreciation schedule for all occupational equipment used in Florida community junior colleges, which added 17.6 percent to the cost of occupational programs compared to a general liberal arts curriculum.[6] Fowler found the additional expense for post-secondary occupational programs varied substantially among schools and programs when equipment amortization schedules were applied.[7] Nursing program costs ranged from 2 to 9 percent above regular program operating costs; electronic programs from 8 to 19 percent above; data processing from 6 to 22 percent above; and auto mechanics from 5 to 20 percent above regular operating costs. Fowler found that the additional cost range was a function of whether equipment was donated, purchased, leased or obtained from surplus

property. Another vagary which caused fluctuations in the additional costs of data processing programs was whether data processing equipment was used for teaching and record keeping.

Provisions for State Sharing in Capital Outlay Expenditures

The approaches used by states to share in the capital outlay costs of school districts are as varied as the number of states which share in such costs. California includes capital outlay costs for vocational programs in its determination of state support.[7] Colorado includes the costs of purchasing, leasing or rental of instructional equipment (including vocational equipment), and repairs and maintenance of instructional equipment in its state support program.[9] Illinois provides for the excess cost of construction and equipment, including vocational education programs.[10] Michigan includes maintenance, repair and initial purchase costs of vocational instructional equipment in its state support program.[11] Ohio's support plan includes provisions for costs on equipment (vocational and laboratory). Vocational and laboratory equipment are amortized over a specified period of time so as not to reflect an unusually high expenditure for a particular program.[12] Tennessee includes the costs of minor equipment in calculating total vocational education costs.[13]

Texas allows costs up to 10 percent of the replacement value of equipment and 7 percent of the replacement value of facilities.[14] Utah includes total expenditures for both new and replacement equipment in its state support program.[15] Maryland initiated full state

funding of capital outlay expenditures in 1971.[16] Action taken by the Wisconsin Legislature in 1973 allows, for the first time in that state's history, up to $100 per pupil in average daily membership for current capital outlay and indebtedness expenditures to be included in its cost sharing program with local school districts.[17]

A study in 1968-69 reported that 25 of 50 states allocated funds for either construction and/or debt service, 3 of 25 states shared in capital outlay expenditures in excess of the 50 percent level, while 9 of the 25 supported such programs at less than the 25 percent level.[18]

Vocational Education Program Cost Differentials

Cost differential studies of vocational education programs have resulted in reports of varying excess costs which may be attributed to vocational programs as compared to regular education programs.[19] Secondary vocational program cost differentials reported in a Florida study ranged from 1.52 for distributive education programs to 2.91 for technical education programs.[20] Cost differentials for secondary vocational programs ranged from 1.39 for business education programs to 2.13 for agricultural programs in Kentucky.[21] The following ranges of reasonable cost differentials for selected vocational education programs have been reported.[22]

Grades 3 - 8	1.00
Business Education	1.40 - 1.80
Distributive Education	1.40 - 1.50
Trades and Industries	1.50 - 2.90
Health Occupations	1.40 - 2.70
Agriculture	1.60 - 2.60
Home Economics	1.40 - 1.70

A recent study of cost differentials for Florida vocational programs included only net current expenditures (excluding capital outlay, debt service, food services and transportation but including rental and replacement of equipment).[23] Since inadequate accounting records for fixed assets in Florida precluded treatment of capital outlay depreciation and since there are separate provisions for capital outlay financing in Florida, these costs were excluded from cost differentials. The study sampled 24 counties and over 400 vocational-technical courses. The unweighted means approach resulted in a range of cost differentials from 1.09 for Category VI vocational education courses to 1.97 for Category I courses.

It has been assumed until recent studies that unless there is evidence to the contrary, many costs (mostly indirect costs) may be applied equally to all programs regardless of the unique characteristics of special programs. NEFP Special Study No. Two on Exceptional Children programs treated general capital outlay and debt service as a constant over all program, thus, such costs were the same for regular and special education programs.[24] However, the study did attempt to allocate special equipment and special construction costs to specific programs. The problem was that school districts did not keep adequate records on special equipment costs and tended not to report them. This procedure likely overestimated the base cost of regular education programs and underestimated certain special education program costs that tended to be facility and equipment intensive, i.e., programs for the deaf. Bentley found that one of the factors that contributed most significantly to cost differentials

of special education programs was expenditures for instructional supplies and equipment.[25]

Reasons for Non-Support and Arguments Favoring State Support of Capital Outlay

An ideal educational program structure would be one that reflects discrete program delivery systems, yet not so detailed as to be costly and unmanageable. There is little doubt that the quality of facilities and equipment available to support education affects the quality of education offered to the child. The absence or lack of appropriate instructional equipment in vocational programs, for example, may actually have pernicious effects and be a negative cost to society which might not exist if the vocational program were non-existent. Retraining or unlearning of inappropriate skills may be necessary if the student has been inculcated with outdated skills or trained on inadequate equipment.

Wattenbarger suggested that sound characteristics for a strong state and local partnership will include adequate provisions for capital outlay and local access to borrowing funds for capital outlay.[26] The following have been suggested as reasons for the sparsity of capital outlay expenditure data on specific educational programs.

1. Methods of acquiring equipment for instructional purposes is varied and accounted for in different ways. Equipment may be rented or leased which is generally reported as a current expense. On the other hand, purchased equipment is treated as capital outlay and may or may not be included in the calculation of the cost differential. Varied practices such as the above tend to distort the cost differential, therefore, the tendency is to ignore such costs or spread equipment costs over all programs, which has the effect of understating the cost differential.

2. Local school districts in most states have not been required to keep up-to-date records on equipment (except for some federal programs). There is no profit and loss accounting in public schools, nor is there any tax accounting necessary as in the private sector.

3. Fixed asset accounting for the purpose of establishing insurance values does not result in the same asset values needed in depreciation schedules, therefore, most records of this nature are inappropriate for assigning capital asset costs to programs.

4. The inability to establish a value on used equipment, donated equipment or equipment purchased as surplus has discouraged school districts from making an effort to establish yearly depreciation costs.

5. There is disagreement among experts as to appropriate depreciation schedules for instructional equipment. Establishing depreciation schedules for each program and each piece of equipment is an expensive and time consuming task.

6. Apportioning indirect and direct costs related to equipment acquisitions has not been necessary heretofore, as the emphasis on program costs, cost-benefit analysis, and cost-effectiveness studies did not exist.

Arguments for the proper accounting of capital are extended here to reveal more recent thinking on the subject. Those proponents of the state support of capital outlay costs and accounting for such costs by programs would propose the following:

1. Unless capital outlay program costs are treated separately in state support programs, it is necessary to include such costs in educational program cost differentials as a part of general state subventions. Otherwise, local school districts must assume the entire burden of capital outlay costs and support of facility and equipment investments becomes a function of local preferences and local ability to pay, which violates the principle of fiscal neutrality.

2. Research in cost-benefit and cost-effectiveness necessitates the establishment of true costs for each program. Program cost accounting which includes the appropriate assignment of fixed assets

by program is critical to the attainment of accurate benefit and effectiveness ratios.

3. Local school district programs are often supported by private and governmental grants. Fixed asset accounting is necessary for allocating direct and indirect costs to programs and for computing overhead rates for grants. Furthermore, failure to consider some form of depreciation or capital outlay costs as part of a service rendered will produce an underestimated figure in comparison to the costs of similar services provided by the private sector under contractual arrangements.

4. The argument that equipment depreciation schedules cannot readily be established for educational equipment is ignoring the fact that private business has done it with some success.

5. The physical environment and learning conditions in education are most important next to qualified personnel. Failure to consider adequate facilities and equipment in state support plans and failure to account for these costs leaves these conditions to the vagaries of local demand and local ability to pay. Learning environments cannot be left entirely to inconsistent local preferences.

Alternative State Support Provisions For Local Equipment Expenditures

The purpose here is to discuss alternative arrangements by which states can support local expenditures for capital outlay. Although the discussion will center on equipment assets, much of the discussion may be applied to facility improvements or acquisitions. Whether a state has full state funding, power equalizing grants, equalization grants (weighted or unweighted), or a guaranteed valuation support program, it must ultimately decide on the basis by which it will support capital outlay or equipment costs. Even full state assumption of local education costs implies accounting for equipment expenditures--perhaps with depreciation schedules.

Funding Approved Programs

The state funding of approved programs would seem to have the following implications and consequences.

1. Establishment and approval of local programs suggests that a working partnership and agreement exists between the state and local districts.

2. Approval of programs and program costs requires that a specified state authority or agency must make judgments regarding:

   a. The establishment of a program.

   b. Appropriate staff-pupil ratios (a range), space needs, equipment needs, and pupil-contact hours.

3. Basing state support on approved programs implies that the local district must:

   a. Establish the need for the program.

   b. Formulate and present a plan for meeting facility and equipment needs.

   c. Guarantee and justify the ability of the local unit to conduct the program.

4. One procedure a designated state authority can use is to study the best programs in the state, using the results as a basis for establishing state program standards. Such a procedure would suggest:

   a. The need for a panel of experts to identify superior programs.

   b. An intensive research effort to identify the appropriate mix of resources for each program, i.e., space, staffing, equipment, objectives, contact hours, etc.

5. The identification of a standard cost per program (stable from year to year) would not be advisable, as staffing, facility, and equipment prices fluctuate among and within states. In addition, some states (including Florida) build regional price variations into the cost differentials of aid formulae.

6. Using the approved program approach would erode local decision making and might discourage innovative or unusual

programs, unless exceptions are specifically provided for in state legislation and/or policies. Provisions for local add-ons should be allowed on the basis of local proposals that relate need and jusitification.

7. The approved program system should provide for both emergency and long-range needs.

8. The approved program concept is likely to be more complex, require additional bureaucracy, and require higher state administrative costs than the open-ended program approach. On the other hand, the approved program concept should mean a more uniform system of local programs, less waste and inefficiency, a more viable means of evaluating and assessing local programs and a more uniform system of generating and gathering local cost data. Whether the benefits derived are greater than the assumed costs of this system was not assessed empirically for this discussion. A cost-benefit study of the approved program concept should help answer this question.

Funding Open-Ended Programs

The approach for funding open-ended local programs suggests that local districts would be permitted to offer and finance any program deemed necessary and report costs to the state. Funding open-ended programs might have the following characteristics and consequences.

1. Local preferences and decisions (local control) would be deemed more desirable than state instituted program standards and guidelines from a purely local perspective.

2. State support of local programs might be wasting dollars on a duplication of programs and facilities, inefficient programs, or excessive local preferences.

3. This support system would not need the research or studies required to set program standards and would avoid the administrative costs necessary to assess and approve local programs.

4. The ability of local units to make long-range program and budget plans would seem to be enhanced if there is an absence of state enforced standards and guidelines.

5. Funding open-ended local programs could cause some distortions in educational programs which might be inconsistent with personnel needs in the state. For example, the continued training of auto mechanics may be contrary to the state or local need for this skill.

6. This approach is likely to be less complex, require less state personnel and less state administrative costs than the approved program system.

Funding Yearly or Depreciated Equipment Costs

There are advantages and disadvantages of the two primary alternatives for accounting for and reporting equipment costs: the fiscal year, one-time charge for equipment costs and the depreciation schedule approach for spreading equipment costs over several years.

Yearly Charge Approach

Following are a few of the characteristics and consequences of implementing the yearly charge approach to accounting for and reporting local equipment costs.

1. Initial equipment expenditures for new programs will be high and may be overly burdensome if local districts must finance a large share of these expenditures.

2. The State's share of equipment and program costs should be moderately stable except for inflation and/or unusual local demand for new programs as a result of unanticipated needs, i.e., new technology, expanding industrial base. The assumption is that unusual local demand and need will be randomly distributed over the years and will not affect the total state share of costs (over the long term) whether the yearly charge or depreciation schedule approach is used.

3. The one-time costing approach will avoid the myriad problems associated with keeping extensive records on equipment, i.e., depreciation schedules, purchase costs, repairs and maintenance to equipment, estimating service life of equipment and judgments on obsolescence and salvage value.

4. Local school districts may opt for the purchase of new equipment more often than necessary with the knowledge that the state will share fully or substantially in such costs. This assumes the absence of state enforced standards regarding equipment purchases and replacement schedules.

5. If cost differentials for local programs are based on studies of a disproportionate number of new programs, the effect will be to overestimate the cost differential because of high initial equipment costs. On the other hand, studies of a disproportionate number of established programs, which already have incurred substantial equipment costs, will tend to underestimate cost differentials if depreciation schedules for equipment are not used (assuming a cross sectional study based on expenditures for a single fiscal year).

Depreciation Schedule Approach

Depreciation is generally defined as a loss in the value or service life of a fixed asset because of wear and tear through use, elapse of time, inadequacy or obsolescence. Proponents suggest that educational institutions ought to be using depreciation schedules to properly charge equipment expenditures to programs in order to obtain the true cost of educational programs and services. Present accounting methods in most school districts include equipment expenditures in the broad budget category of capital outlay, which is considered an indirect cost that is normally spread over all programs. Proponents of depreciation schedules argue that there are many indirect costs, including equipment costs, which feasibly can be added directly to the costs of identifiable educational programs (including vocational programs).

The General Institute of Certified Public Accountants, in its 1974 publication "Audits of Local and State Governmental Units," took action to suggest that school systems include depreciation as

a formal part of their accounting structure. This need arises in particular as a result of depreciation being a part of indirect costs for computing overhead charges for federal, state and private contracts.[27] An Ernst and Ernst report of a study of special education programs in Illinois suggested that depreciation be recorded on a memorandum basis separate from the general fund accounting, but that when calculating and reporting actual program costs, yearly depreciation costs for equipment should be added directly to the costs of programs in which the equipment is used.[28] Cohn also suggested that depreciation charges be added to current educational expenditures to reveal the true costs of programs.[29]

Federal Handbook II-Revised on accounting for state and local school system expenditures suggested that the operating cost or the total cost, including direct costs, indirect costs and the use cost of buildings and equipment for all programs or activities, be maintained, not in the regular accounts, but in memorandum accounting.[30] Memorandum accounting is a method by which auxiliary costs are accounted for, not in the general fund ledger accounts, but in separate records which show, for example, replacement value of buildings, yearly depreciation charges for fixed assets and purchase price. This procedure can provide a method by which the cost of using buildings and equipment may be allocated to the operation of the local districts' activities and programs. The Handbook suggests that if depreciation costs are to be calculated, a schedule should be established for depreciating each building and each piece or similar pieces of equipment. The Handbook's recommendation is

that school districts use a straight-line basis of depreciation over the expected life of a fixed asset. There are additional suggestions regarding the calculation of new costs associated with equipment exchange, a formula for extending the life of equipment due to improvements and a sample form that can be used for recording capital assets and depreciation schedules.[31]

Following is an enumeration of the possible effects and consequences of using the depreciation schedule approach for determining equipment costs of local programs:

1. If depreciation schedules are established according to rigid business and accounting standards, it will require that extensive local records be kept on each piece or similar pieces of equipment, including:

   a. Estimated life in years and years remaining

   b. Original cost

   c. Depreciation for previous years

   d. Balance of remaining depreciation

   e. Depreciation charges for current year

2. The time and expense necessary for local districts to keep adequate depreciation schedules should be compared to the benefits that accrue to local districts from the state program that requires such records. Again, the results of a cost-benefit study would be helpful in answering this question.

3. Amortizing fixed assets or equipment costs over several years does not reduce the costs but spreads the costs attributable to a program more evenly and accurately over the useful life of the equipment. The value of depreciation schedules is in avoiding the vacillation in program costs (assuming equipment costs are allocated directly to programs on a yearly basis) assigned to high or low capital expenditure years (e.g., in years when initial equipment costs of new programs are high). It is necessary to use depreciation schedules to set more accurately the prices of programs and services

rendered and the cost differentials assigned to these programs.

4. The establishment of equipment depreciation schedules and cost differentials implies spreading state support of local progams and equipment expenditures over several years rather than supporting a one-time expenditure. School districts must pay for equipment when purchased, finance through a lease-purchase arrangement, pay rental charges or borrow money to purchase equipment. The use of depreciation schedules with cost indices does not provide local districts with the necessary cash to make new program purchases the year money is needed. An alternative arrangement would be to establish a local reserve fund in which state funds would accumulate to finance equipment purchases as needed. This approach would imply the following:

   a. Special state legislation to establish a reserve fund and to assure that the fund is protected and earmarked for equipment purchases.

   b. A determination of the amount to be set aside in the reserve fund.

   c. If the reserve fund were established through a separate state funding program, it would not be necessary to calculate equipment depreciation costs as a part of cost differentials.

   d. The decreased purchasing value of the reserve fund due to inflation over time would have to be taken into consideration.

5. If the State prefers to avoid extensive local record keeping with respect to equipment depreciation schedules and apportionment of expenditures, yet retain the concept of depreciating equipment costs, then it must establish the necessary equipment depreciation schedule standards for each program. This implies the existence of the following:

   a. Standard depreciation schedules for each piece or similar pieces of equipment.

   b. State approved equipment purchases by program.

   c. Life expectancy and useful-year standards for each piece or similar pieces of equipment.

   d. Provisions for altering the depreciation schedule because of excessive use or unplanned obsolescence.

Such a system would not require setting standard costs. Prices of equipment and salvage value may not be determinable because of the effects of inflation and regional price variations. Once the purchase has been made and the price known, the depreciation schedule would be operationalized.

6. The rate at which assets wear out and the amount of decline in value that occurs in any one period is debatable, even in industry. However, since school districts, unlike the private sector, are neither accounting for profits and losses nor filing income tax reports, the straight-line method of depreciation, which spreads the cost of equipment over its useful life, is the simplest and most adequate method of depreciating equipment costs. The formula for annual depreciation charges using the straight-line method is:

$$\text{Annual Depreciation} = \frac{\text{Initial Cost} \quad \text{minus} \quad \text{Salvage Cost}}{\text{Estimated Useful Life}}$$

7. The depreciation schedule approach implies the use of current prices and costs of equipment and the frequent adjustment of cost differentials related to fluctuating annual costs and prices; otherwise, cost differentials do not reflect current pricing patterns, and some programs may have underestimated cost differentials due to the inflation factor.

8. Depreciation schedules are not maintained in a governmental unit's general fund account for the current operation of the school system. Annual depreciation charges are not recorded as an expenditure but as a program cost in the form of memorandum accounting. If depreciation costs are reported as a current expenditure, the result is a form of double counting of equipment purchase expenditures (capital outlay accounts) and annual depreciation costs.

9. With either the yearly charge system or depreciation schedule system, school districts must account for leased, rented, purchased, donated or surplus equipment. It is important to note that accounting for rented, leased, and purchased equipment varies from district to district. In certain instances rented or leased equipment is treated as a current operating expense, whereas, purchased equipment is treated as capital outlay and is not usually counted as a current operating expense. If cost differentials are

based only on current operating expenses, then it weights heavily on the side of programs where districts rent or lease a disproportionately large share of equipment. If school districts know they can inflate the cost differential by renting or leasing equipment as opposed to purchasing equipment, they may opt for the former.

10. Procedures must exist for treating districts which receive other sources of support for equipment. Other monetary support of equipment must be deducted from the state subvention so the state is not paying twice for the same equipment. Also, the price of equipment purchased from surplus needs to be known so the state is not reimbursing a district for a cost it did not incur.

11. If the depreciation approach is used, consideration needs to be given to the prior effort of local districts which already have established programs. Districts should not be penalized for their efforts in previous years to institute programs which required high tax burdens.

Conclusions and Recommendations

Conclusions and recommendations emanating from this paper should be tempered with the reality that they are not based on an empirical investigation but the product of an analysis of existing literature and the writer's judgments regarding a problem and its alternative solutions. Ongoing or future research may prove these judgments to be incorrect. If such is the case, the writer will accede to the prevalent wisdom of empirical research.

The reasons for non-support and the arguments favoring state support of capital outlay were discussed. Perhaps this is the least difficult choice to make, as there appears to be some agreement and justification for the inclusion of capital outlay provisions in state programs based on legal, financial and equity principles. The magnitude of the support for local capital outlay expenditures

(including equipment) is something each state must decide. It would appear, however, difficult to meet the legal tests and satisfy equity principles with much less than full state funding or some form of percentage equalizing or power equalizing type of grant.

The paper then proceeded to a discussion of the alternatives of basing state support on approved local programs or allowing an open-ended program approach at the local level. The consequences and benefits of these approaches are less lucid than other choices. Balance between the two approaches would seem to be a desirable objective. Complete state control and dictation of local program standards is assuming the state has full knowledge regarding local program needs and modes of operation. State financing of open-ended local programs likely would invite more duplication of services and inefficient programs than might be tolerable. At the risk of creating more state agencies, it is suggested that a limited number of standards must be established and approved by a combination of local and state officials. The less state administrative costs and consumption of local officials' time in operationalizing a funding program, while concurrently setting and maintaining a reasonable set of program standards, the better.

Resolving the problem of whether to base state support of equipment expenditures on one-time charges or yearly depreciation charges is even more difficult. The arguments against forcing local districts to record, calculate and account for depreciation of equipment would seem to be paramount. However, the necessity of accurately costing programs and reporting overhead charges would seem to necessitate the establishment of some form of depreciation

schedule. From the perspective of the local school district, one must look at the benefits that will accrue as a result of any state support system. It is this writer's opinion and I think a perception that most local authorities have, that the benefits derived from a state program which requires local accounting of depreciation charges will not be as great as the costs and time involved.

The Alternatives - Rank Ordered

1. The full or nearly full state funding of state approved equipment expenditures is supported in this paper. The random distribution of new programs and initial equipment costs over the years should not cause the total state dollars necessary to support this program to vary substantially from year to year, except for inflation, unplanned obsolescence, or new technology. The state financing of local equipment expenditures as needed and approved by the state would seem to solve the local finance problem of high equipment cost years and meet local vocational program needs at the same time. State administrative structures and costs should be no more prohibitive than any of the other alternatives suggested, except for a completely open-ended system of local program establishment. The Maryland experience should provide states with at least one model of how this program would operate.

2. Assuming a separate state program of funding local capital outlay and equipment costs is not preferred nor politically or economically feasible, then the second ranked alternative is a separate state program based on state established depreciation schedules for equipment. This approach would charge equipment depreciation costs against specific programs or categories of vocational programs based on statewide studies of vocational programs. Research used as a basis of establishing cost differentials for equipment should be comprehensive statewide analyses of programs and longitudinal records of equipment costs, purchases, and life expectancies. The rationale for a separate cost differential or cost index for equipment is based on the necessity of establishing a separate local fund supported by state and local dollars and used exclusively for approved equipment expenditures. If the state does not support single-year expenditures for equipment, then it must allow

state aid dollars for capital outlay to accumulate and be used as needed, otherwise, the local district may have a fluctuating local tax burden associated with the fluctuation in equipment expenditures.

3. The third alternative is only a slight variation from the preceding proposal. The same research procedures would be used to establish equipment cost differentials, but instead of creating a separate aid program, the cost differentials for equipment or vocational programs would be included in the general state support program and treated like all other local programs. State dollars for the support of equipment would be lost in the mix of general state support dollars and local districts would not be required to establish a separate reserve fund used exclusively for equipment purchases.

4. The fourth alternative suggested for aiding local equipment expenditures is one that was argued against earlier; the establishment of local depreciation schedules based on state guidelines. The state could either finance yearly depreciation charges through separate programming or incorporate the depreciation charges into the cost differentials of general support programs.

The ranking of these alternatives is open to debate among school finance scholars. There are obviously permutations of the above which were not discussed in detail, but it is believed the major alternatives were presented. One of the primary purposes of state support programs is the identification of variable program and student needs at the local level and then assuring, through some form of state subvention, that these needs are met, without causing high tax burdens that result from local wealth disparities. The alternative supported in this paper of a separate state program for the full funding of approved equipment expenditures would seem to meet the above criteria. The use of cost differentials and spreading state reimbursement for equipment costs over several years will meet local needs, but not as well. Still, with the known problems of cost differentials,

their use is much preferred and obviously an advantage over a total disregard of differential needs and costs of local programs.

FOOTNOTES

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2. National Education Association, Financial Status of the Public Schools, 1974 (Washington, D. C.: The Association, 1974), p. 49.

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